Annex "A-1"

Scope of Works-

Sealing of Air Ducts

Sealing process to be applied on unnecessary openings, holes and loose joints of duct works and the entire ventilation system to eliminate air leakages, enhance building pressurization, lower energy cost, and improved indoor air quality.

Sealing equipment and tools to be used in the project:

- Leakage Testing Machine
- Thermal imaging cameras
- Analog pressure gauges.
- Visual testing machine
- Foil Tape
- Sheet Metal Patches (Galvanized Steel Sheet Metal)
- Butyl Tape / Sealant
- Self-Adhesive Duct Repair Patches

The following work sequence must be followed:

Schedules

Work schedules will be mutually agreed upon with the client, including evenings, Sundays, or holidays if requested.

Arrangements

An authorized SSS Representative will coordinate with the project team to oversee and inspect work, assist as needed to prevent delays, and allow inspections at their convenience. All work will be documented, with regular reports provided to key building personnel.

Pre-Leak Testing & Sealing Assessment

- **Visual Inspection-** Conduct a thorough walkthrough of the duct system
- **System Preparation-** Before testing or sealing, make sure the duct system is in proper condition.
- **Equipment Check-** Verify that all testing and sealing tools are ready and calibrated.
- **Safety Review-** Ensure a safe environment for workers and occupants.
- **Documentation & Assessment-** Record details for planning and reporting

System Pressurization

- **Close the Inlet Damper:** Ensure the fan's inlet damper is closed to prevent over-pressurization of the duct system.
- **Activate the Blower:** Turn on the tester blower.
- **Adjust the Inlet Damper:** Gradually open the inlet damper until the "Duct System" gauge reads the desired system pressure.

Thermal leak detection

- Escaping air from a duct creates a localized temperature change around the leak.
- These differences show up clearly on a thermal camera, especially when there's a noticeable temperature contrast between supply air and ambient air.
- A thermal camera picks up these temperature anomalies, displaying cold spots that indicate possible leaks.

Visual Testing Machine

- To identify the leaks in the ducting.
- Markings of leaks identified in the process.

Execution of post sealing process

- Shut down equipment then clean up the area affected by the sealing activity.
- Remove all the protection cover in work place
- Return everything in place
- Transfer all the equipment and tools to other area/ducts to be sealed.
- Report, video and digital pictures on the status of the AHU and their ducts during cleaning, decontamination and sealing process will be submitted.